

Appl. No. : 10/624,816
Filed : July 22, 2003

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of treating viral infections comprising applying electrical stimulation to the skin or mucosa of a patient, wherein said electrical stimulation is applied as a series of electrical pulses via first and second electrodes located on a surface of an electrical stimulation device ~~as a series of electrical pulses~~, wherein the ~~first electrode defines a closed contour structure configuration that surrounds a portion of the surface and the second electrode is configured to define a boundary defines another closed contour configuration that surrounds the closed contour of the first electrode,~~ and wherein different pulses in said series have different maximum amplitudes.
2. (Original) The method of Claim 1, wherein said pulses progressively increase or decrease in maximum voltage or current amplitude
3. (Original) The method of Claim 1, wherein said pulses progressively increase in maximum voltage or current amplitude.
4. (Original) The method of Claim 1, wherein some of said series of pulses comprise AC waveforms, and wherein some of said series of pulses comprise DC waveforms.
5. (Original) The method of Claim 4, wherein at least a portion of said series of pulses alternates between AC and DC pulses.
6. (Original) The method of Claim 1, wherein said pulses vary in maximum amplitude from approximately 3 volts to approximately 20 volts.
7. (Currently amended) A method of treating viral infections comprising applying electrical stimulation to the skin or mucous membranes of a patient, wherein said electrical stimulation is applied as a series of electrical pulses via first and second electrodes located on a surface of an electrical stimulation device ~~as a series of electrical pulses~~, wherein the ~~first electrode defines a closed contour configuration that surrounds a portion of the surface and the second electrode defines~~ is configured to define a boundary ~~another closed contour configuration that surrounds the closed contour of the first electrode and~~ wherein different pulses in said series have different frequencies.
8. (Original) The method of Claim 7, wherein said pulses have different maximum amplitudes.

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9. (Currently amended) A method of treating viral infections with an electrical stimulation device, the method comprising applying the application of alternating periods of AC and DC electrical stimulation pulses to the affected skin or mucosa of a patient.

10. (Original) The method of Claim 9, wherein said alternating periods of AC and DC electrical stimulation progressively increase in amplitude.

11. (Original) The method of Claim 9, wherein different periods of AC stimulation have different frequencies.

12. (Original) The method of Claim 9, wherein said frequencies progressively increase or decrease in frequency within one of said AC periods.

13. (Currently amended) An apparatus for treating viral infections with electrical stimulation applied to skin or mucous membranes, comprising:

at least two electrodes located on a surface, wherein ~~a first of the at least two electrodes defines a closed contour structure configuration that surrounds a portion of the surface and the configuration of~~ a second of the at least two electrodes is configured to define a boundary ~~defines another closed contour configuration that surrounds the closed contour of the first electrode; and~~

a circuit configured to supply both AC and DC voltage to said electrodes at voltages of less than or equal to about 20 volts.

14. (Currently amended) An apparatus for treating viral infections with electrical stimulation applied to skin or mucous membranes, comprising first and second electrodes located on a surface, wherein said first electrode defines a closed contour configuration that surrounds a portion of the surface and said second electrode is configured to define a boundary ~~defines another closed contour configuration that surrounds the closed contour of the first electrode and wherein said first electrode and said second electrode each comprise an elongated surface for application to a patient's skin or mucosa.~~

15. (Cancelled)

16. (Cancelled)

17 (Currently amended) The apparatus of Claim 14, wherein said first electrode and said second electrode ~~closed contours comprise are configured as concentric circular contours~~circles.

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18. (Currently amended) The apparatus of Claim 14, wherein said first electrode and said second electrode ~~closed contours comprise~~ are configured as concentric rectangular contours ~~rectangles~~.

19. (Currently amended) The apparatus of Claim 14, wherein said first electrode and said second ~~closed contours comprise~~ electrode are configured as concentric squares ~~contours~~.

20. (Cancelled)

21. (Cancelled)

22. (Currently amended) A device for treating viral infections comprising:

a housing;

an electrical signal source mounted to said housing;

an application surface of said housing for application to a patient's skin or mucous membranes;

first and second electrodes located on the application ~~a surface of the housing for application to a patient's skin or mucous membranes, wherein said first electrode defines a closed contour configuration that surrounds a portion of the surface and said second electrode defines~~ configured to define a boundary another closed contour configuration that surrounds the ~~closed contour of the first electrode~~ and wherein said electrodes are coupled to said electrical signal source so as to be energized by said electrical signal source; and

a counter mounted to said housing, wherein said counter is configured to display a count of the number of times said electrical signal source has energized said electrodes.

23. (Previously presented) The device of Claim 22, wherein said counter comprises a multi-segment LCD display.

24-28. (Cancelled)

29. (New) The apparatus of Claim 1, wherein said first electrode and said second electrode are in a coaxial configuration.

30. (New) The apparatus of Claim 7, wherein said first electrode and said second electrode are in a coaxial configuration.

31. (New) The apparatus of Claim 13, wherein said first electrode and said second electrode are in a coaxial configuration.

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32. (New) The apparatus of Claim 22, wherein said first electrode and said second electrode are in a coaxial configuration.

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SUMMARY OF INTERVIEW

Exhibits and/or Demonstrations

None

Identification of Claims Discussed

1-4, 17-19, and 22-23

Identification of Prior Art Discussed

Diethelm (U.S. Patent No. 4,913,148) and Lathrop (U.S. Patent No. 5,133,352)

Proposed Amendments

No amendments were provided before the interview. Possible amendments to the independent claims were discussed during the interview.

Principal Arguments and Other Matters

Applicant argued that features of the claims distinguish over the cited prior art, including Diethelm and Lathrop, because this art does not teach, for example, an electrical stimulation device comprising a first and second electrode, where the second electrode surrounds the first electrode, and the art does not teach applying alternating periods of AC and DC electrical stimulation to the affected skin or mucosa of a patient.

Results of Interview

Applicant agreed to clarify claim limitations relating to the closed contour configuration of the electrodes and the application of AC and DC pulses to better convey the scope of the invention. Examiner agreed that the discussed configuration of the electrodes appears to distinguish over the cited prior art.